

ABSTRACT

[0053] Embodiments of the invention provide a method of forming a chalcogenide material containing device, and particularly resistance variable memory elements. A stack of one or more layers is formed over a substrate. The stack includes a layer of chalcogenide material and a metal, e.g., silver, containing layer. A protective layer is formed over the stack. The protective layer blocks light, is conductive, and is etchable with the other layers of the stack. Further, the metal of the metal containing layer is substantially insoluble in the protective layer. The stack and the protective layer are then patterned and etched to form memory elements.